

THE MUSCLE THAT BUILT THE RAIL

To complete the transcontinental railroad, two companies hired cheap immigrant labor and raced to lay the most track



When the Union Pacific and Central Pacific Railroad lines met to complete the first transcontinental railroad, people around the country cheered the news.

On May 10, 1869, a telegraph operator at Promontory Summit, in what was then Utah Territory, tapped out a single momentous word to the rest of the country: "Done." Two railroads one under construction from the East, the other from the West-had finally reached their meeting place, and dignitaries were pounding in the last spikes to create America's-and the world's-first transcontinental railroad. In major U.S. cities, crowds cheered the news and the promise of a transportation revolution.

Funded by huge government loans and land giveaways, and built by the muscles and guts of thousands of men, this iron road promised to link the U.S. population and commerce from the Atlantic Ocean to the Pacific.

But creating it would present monumental challenges: Workers would have to blast through mountain ranges and lay track across broad deserts; they'd have to fend off attacks by Native Americans, and endure brutal winters. Corporate and political corruption would tarnish the project from beginning to end.

But most Americans saw the westward push as nothing less than destiny, and the locomotive as its vehicle. "[The railroad] well suits the energy of the American people," said one Missouri businessman. "They love to go ahead fast, and to go with power. They love to annihilate the magnificent distances."

IMAGINING THE RAILROAD

The same month in 1860 that Abraham Lincoln was elected President, civil engineer Theodore Judah surveyed a Sacramento, California, street for what would become the Central Pacific Railroad. Judah, one of the transcontinental railroad's visionaries, had called the idea of a sea-to-sea rail link "the most magnificent project ever conceived."

Steam-powered railroads had operated in the U.S. since 1830, and Chicago had already become a vital rail hub. But the vast majority of track still lay east of the Mississippi.

Lincoln signed the Pacific Railroad Act into law in 1862, as the Civil War was raging. Lines from Chicago would be extended out to Omaha, Nebraska. Meanwhile, two railroad companies would try to build the treacherous 1,700-mile final leg of the transcontinental route.

The Union Pacific was created to build westward from Omaha; the Central Pacific, guided by Judah, was already laying track heading east from Sacramento. But how to pay for it? With projected costs upward of \$100 million, it was to be the most expensive single enterprise in the nation's history.

Together, the railroads and federal government devised a funding scheme-promoted by Congressmen whose votes had been bought by railroad interests with cash and railroad stock. The government, it was decided, would payout loans to the railroads as they completed sections of track. In addition, the railroads were granted federal lands on either side of the tracks that could subsequently be sold to settlers to help pay for the project.

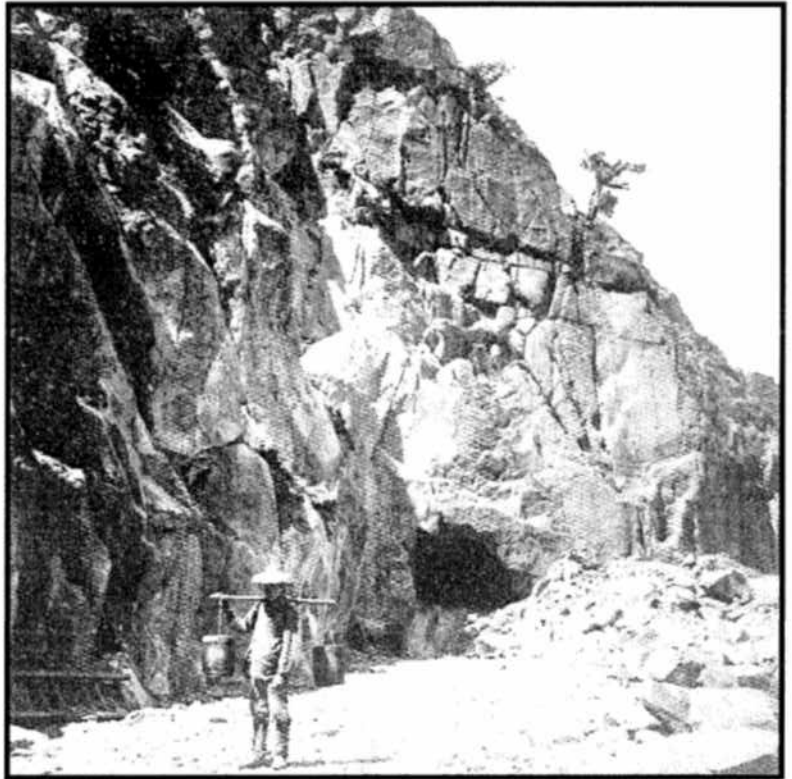
Eventually, the Central Pacific and Union Pacific owned more Western acreage than the areas of Connecticut, Massachusetts, and Vermont combined.

CHINESE AND IRISH HELP

With the Civil War's end in 1865, the railroad's construction, which had been proceeding sporadically, accelerated. Union and Confederate veterans, Mexican-American freedmen, and recent immigrants-especially the Irish-swelled construction crews.

Even so, the Central Pacific struggled to maintain its manpower in the face of the grueling work. Charles Crocker, one of Central Pacific's main investors, approached his construction chief, a tough, one-eyed Irishman named James Henry Strobridge: What about hiring Chinese workers? About 60,000 Chinese had stayed in California after coming for the Gold Rush 15 years earlier.

At first Strobridge refused, claiming Chinese men were "too puny" for railroad work. "Did they not build the Chinese wall, the biggest piece of masonry in the world?" Crocker shot back, referring to the Great Wall of China. Strobridge agreed to hire 50 Chinese on a trial basis.



Immigrant Help: Thousands of Chinese labored on the railroad. They had come to America 15 years earlier in the Gold Rush.



The Big Race: Egged on by the government, the Union Pacific and Central Pacific railroads laid track at a furious pace.

The Chinese workers quickly won Strobridge's admiration, then dominated his crews. By year's end, more than 7,000 Chinese were picking and blasting the railroad's way through the rugged Sierra Nevada mountains, along with 2,000 other laborers.

The railroad workers, who got little of the glory, labored under extremely dangerous conditions, and for as little as a dollar per day. By most estimates, hundreds died on the job from avalanches, heat, accidents, and Native American attacks.

The tracklaying itself proceeded wifly, with separate gangs running up to lay rails, drive spikes, and bolt tracks. Using such teamwork, the rails crawled across the landscape at a rate of two to five miles a day.

Initially, the Central Pacific was supposed to build just 150 miles eastward into Nevada. But in 1866, Congress raised the stakes by turning the construction into a race: The railroads would get the loans and the land for all the track they built as they headed toward one another.

The Union Pacific made steady progress across the flat plains of Nebraska. The worst fear of Union Pacific crews was deadly raids by Cheyenne or Sioux warriors, angered by the railroad's trespass across their prime hunting grounds.

The granite peaks of the Sierra Nevada made slow going for the Central Pacific. It had to blast multiple tunnels, and construct 37 miles of snow barriers to keep the tracks passable in winter. At times, snowdrifts towered 40 feet high.

QUICK FACT

Railroad track miles in the U.S.:

1929:381,417

2001:167,275

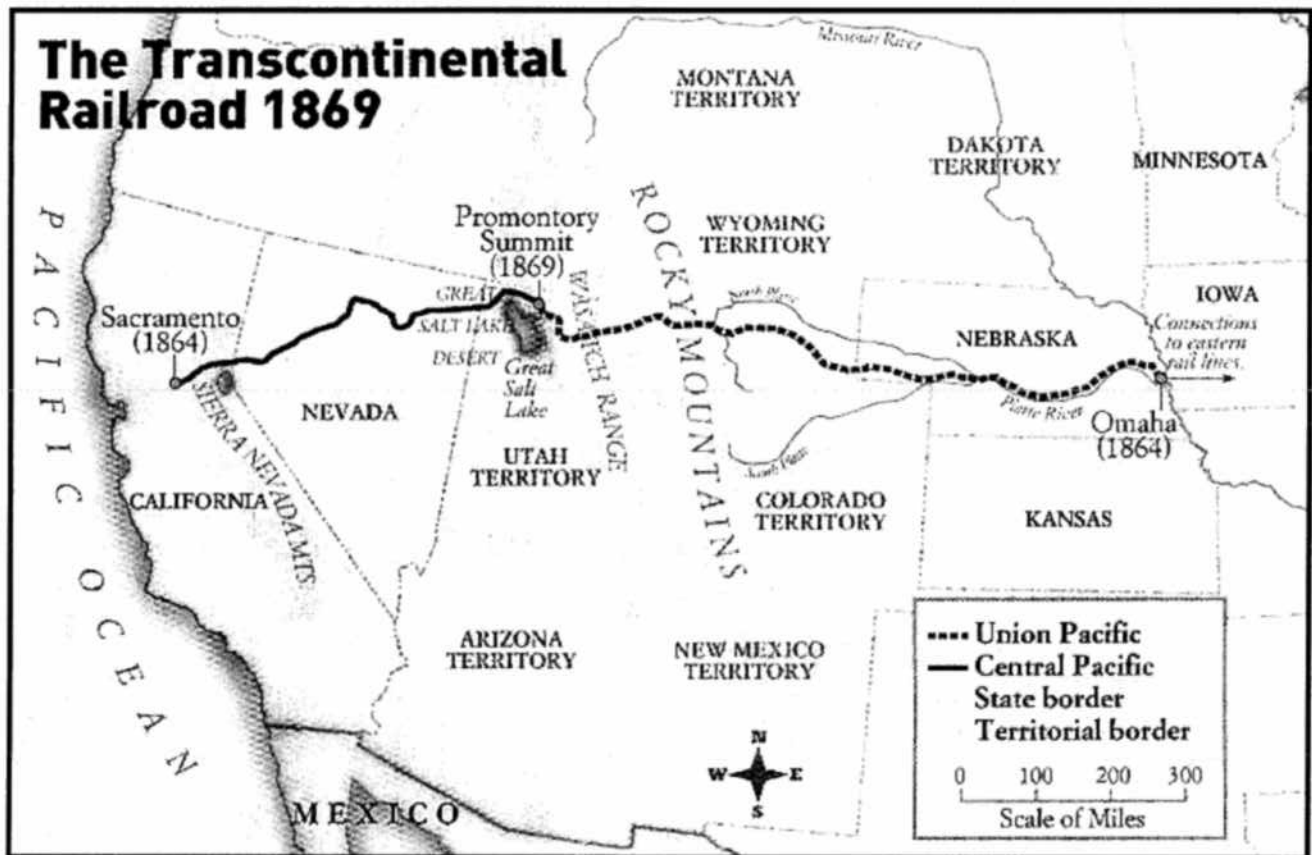
THE FINAL RACE

By 1868, though, the tracks of both companies were poised on opposite sides of Utah, and the final leg became front-page news across the country. The following year, officials of the Union Pacific and Central Pacific met at Promontory Summit to drive in the final ceremonial spikes.

The completion of the east-west link changed the country. In 1852, there had been only five miles of track west of the Mississippi. By 1890, that figure had mushroomed to 72,000 miles. Passenger cars brought settlers to Western lands in record numbers. Freight cars carried Western agricultural and mineral

wealth back East. Shipments of cattle were a prime example of the railroad's economic impact: in 1867, only 20 freight cars of cows were shipped east to Omaha or Kansas City for slaughter; four years later, that number had swelled to 700,000 carloads.

In later years, railroads suffered as corruption and inefficiency battered their reputation and profitability, and as automobile and airplane travel became routine. Miles of U.S. track reached a peak around World War I and has since consistently declined. But the railroads still play a vital role in the economy, carrying nearly as much freight as trucks, barges, and aircraft combined.



FAST FORWARD (WHAT'S HAPPENING TODAY)

Railroads cut many unprofitable passenger lines, starting in the 1950s. In 1971, Congress created Amtrak, a federally subsidized corporation to take over most long-distance passenger rail. But Amtrak has been hobbled by financial losses and aging equipment. In recent years, as Amtrak has flirted with bankruptcy, some critics have called for dismantling it and returning passenger rail to private hands. Others have argued for more federal spending to ensure a strong national rail system.

(For more information on railroads, visit the National Railway Historical Society on the Web at www.nrhs.com)

The Muscle that Built the Rail Comprehension Questions

1. Describe at least three obstacles/challenges faced by railroad workers.

2. Describe President Abraham Lincoln's involvement in the transcontinental railroad.

3. Explain how the railroads were funded.

4. What groups provided labor for the railroads construction? Describe the role of Chinese and Irish workers in the railroads construction.

5. Explain why Native Americans were angered by the transcontinental railroad.

The Muscle that Built the Rail Comprehension Questions

6. Identify the places where the Union Pacific and the Central Pacific Railroads began there construction. Where did the two railroads meet?

7. Why did the government play such a large role in the building of the transcontinental railroad?

8. Using the map of the railroad located in the article, identify the body of water that is located near where the Union Pacific and Central Pacific met.

9. The map shows that the Union Pacific Railroad was able to lay more miles of track than the Central Pacific Railroad. Why do you think that is?

10. Assess the importance of the transcontinental railroad. Why was it important? How did it change the country?
